

R E M A R K S / A R G U M E N T S

Reconsideration of the present application, as amended, is respectfully requested.

The May 13, 2003 Office Action and the Examiner's comments have been carefully considered. In response, the claims are amended and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as originally filed. Therefore, no new matter is added.

Prior Art Rejections

In the Office Action claims 1, 10 and 12 are rejected under 35 USC 102(b) as being anticipated by USP 5,730,129 (Darrow et al.). Claims 3-5 are rejected under 35 USC 103 as being unpatentable over Darrow et al. in view of USP 5,711,300 (Schneider et al.). Claims 9 and 11 are rejected over 35 USC 103 as being unpatentable over Darrow et al. in view of USP 5,938,599 (Rasche et al.).

The Examiner's rejections are respectfully traversed in view of amended independent claims 1, 10 and 12.

Claim 1 is amended to specify that the position of a microcoil in the object being examined is determined and further that a geometrical relationship between the position of the

microcoil and the object being examined is determined. Claims 10 and 12 are amended to include similar features.

In the present claimed invention, the microcoil generates position magnetic resonance signals which represent the current position of the microcoil (see the present application at page 6, lines 5-10, inter alia). Then, a geometrical relationship between the position of the microcoil and the object being examined is used to derive a correct position of a detail of an object being examined in a magnetic resonance image relative to an indication of the position of the microcoil, in combination with the determined, current position of the microcoil (see the present application at page 3, lines 2-7, inter alia).

It is important to note that the claims specify a relationship which is determined between the position of a microcoil and the object being examined, e.g., the patient. Thus, if the patient moves during the procedure, this movement may be determined by measuring a change in the position of the microcoil and applying the geometrical relationship. In turn, the reproduction of the detail of the object being examined in the MR image can be corrected.

Darrow et al., Schneider et al. and Rasche et al. do not disclose, teach or suggest the features now set forth in claims 1, 10 and 12.

Darrow et al., Schneider et al. and Rasche et al. do not disclose, teach or suggest the features now set forth in claims 1, 10 and 12.

With respect to Darrow et al., movement of the subject is determined by a subject tracking unit 200 which receives data from a position detection means 190. The position detection means 190 includes LEDs 193, 195, 197 fixed to the subject so that as the subject moves, the LEDs move and by tracking the movement of the LEDs, the movement of the subject is determined. A coil element 151 is tracked by a device tracking unit 170 which determines the position of the coil element 151 relative to a fixed reference point, such as a support table 110 (col. 3, lines 38-40).

In contrast to the claimed embodiments of the invention, a relationship between the coil elements 151 and the subject being examined is not determined so that movement of the coil element corresponds to movement of the subject. Rather, the only relationship involving the coil element 151 used in the image reproduction is the relationship between the coil element and the fixed relationship point (via device tracking unit 170).

Schneider et al. does not disclose, teach or suggest determining the position of a microcoil and deriving a corrected position of a detail of an object being examined in the magnetic

resonance image on the basis of the position of the indication of the position of the microcoil.

Rasche et al. describes arranging a microcoil on an object insertable into a body to enable the position of the object to be determined. Rasche et al. does not disclose, teach or suggest determining a geometrical relationship between the position of the object or microcoil and the body being examined and therefore does not close the gap between the present claimed invention as defined by claims 1, 10 and 12 and Darrow et al. alone or in combination with Schneider et al.

In view of the foregoing claim 1 is patentable over Darrow et al. under 35 USC 102 as well as 35 USC 103 and claims 10 and 12 are patentable over the cited references under 35 USC 102 as well as 35 USC 103.

Dependent claims 3-5, 9 and 11 are either directly or indirectly dependent on claims 1 and 10. These claims are separately patentable over the cited references and in view of their dependence on one of the independent claims. In view of the foregoing, claims 1, 3-5 and 9-12 are patentable over the cited references under 35 USC 102 as well as 35 USC 103.

NEW CLAIMS

Claims 18-28 are added and are directed to additional features of the invention. The subject matter of these claims is supported by the originally filed application. Therefore, no new matter is added. The cited prior art does not disclose the features recited in the new claims.

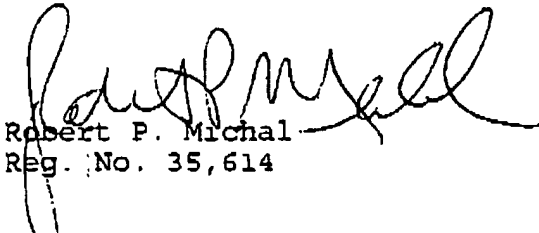
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If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

Entry of the amendment, allowance of the claims, and the passing of the application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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